RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/734,563
Source: IFW0
Date Processed by STIC: 12-6-04

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IFWO

RAW SEQUENCE LISTING DATE: 12/06/2004
PATENT APPLICATION: **US/10/734,563** TIME: 12:28:24

Input Set : **A:\sequence listing.txt**
Output Set: **N:\CRF4\12062004\J734563.raw**

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  3 <110> APPLICANT: Sorge, Joseph
  5 <120> TITLE OF INVENTION: DNA POLYMERASES WITH REDUCED BASE ANALOG DETECTION ACTIVITY
  7 <130> FILE REFERENCE: 25436/2345C
  9 <140> CURRENT APPLICATION NUMBER: US 10/734,563
 10 <141> CURRENT FILING DATE: 2003-12-12
 12 <150> PRIOR APPLICATION NUMBER: US 10/298,680
 13 <151> PRIOR FILING DATE: 2002-11-18
 15 <150> PRIOR APPLICATION NUMBER: 10/408,601
 16 <151> PRIOR FILING DATE: 2003-04-07
 18 <150> PRIOR APPLICATION NUMBER: US 10/280,962
 19 <151> PRIOR FILING DATE: 2002-10-25
 21 <160> NUMBER OF SEQ ID NOS: 110
 23 <170> SOFTWARE: PatentIn version 3.2
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 30
 27 <212> TYPE: DNA
 28 <213> ORGANISM: Artificial sequence
 30 <220> FEATURE:
 31 <223> OTHER INFORMATION: primer
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 40 <213> ORGANISM: Artificial sequence
 42 <220> FEATURE:
 43 <223> OTHER INFORMATION: primer
 45 <400> SEQUENCE: 2
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 49 <210> SEQ ID NO: 3
 50 <211> LENGTH: 23
 51 <212> TYPE: DNA
 52 <213> ORGANISM: Artificial sequence
 54 <220> FEATURE:
 55 <223> OTHER INFORMATION: primer
 58 <220> FEATURE:
 59 <221> NAME/KEY: misc_feature
 60 <222> LOCATION: (23)..(23)
 61 <223> OTHER INFORMATION: n = Uracil
 63 <400> SEQUENCE: 3
W--> 64 gacgttgtaa aacgacggcc agn                                       23
 67 <210> SEQ ID NO: 4
 68 <211> LENGTH: 22
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(ps. 6)

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69 <212> TYPE: DNA
70 <213> ORGANISM: Artificial sequence
72 <220> FEATURE:
73 <223> OTHER INFORMATION: primer
75 <400> SEQUENCE: 4
76 acgttgtaaa acgacggcca gt 22
79 <210> SEQ ID NO: 5
80 <211> LENGTH: 31
81 <212> TYPE: DNA
82 <213> ORGANISM: Artificial sequence
84 <220> FEATURE:
85 <223> OTHER INFORMATION: primer
87 <400> SEQUENCE: 5
88 caatttcaca caggaaacag ctatgaccat g 31
91 <210> SEQ ID NO: 6
92 <211> LENGTH: 37
93 <212> TYPE: DNA
94 <213> ORGANISM: Artificial sequence
96 <220> FEATURE:
97 <223> OTHER INFORMATION: primer
99 <400> SEQUENCE: 6
100 gaacatcccc aagatgaacc cactattaga gaaaaag 37
103 <210> SEQ ID NO: 7
104 <211> LENGTH: 37
105 <212> TYPE: DNA
106 <213> ORGANISM: Artificial sequence
108 <220> FEATURE:
109 <223> OTHER INFORMATION: primer
111 <400> SEQUENCE: 7
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115 <210> SEQ ID NO: 8
116 <211> LENGTH: 37
117 <212> TYPE: DNA
118 <213> ORGANISM: Artificial sequence
120 <220> FEATURE:
121 <223> OTHER INFORMATION: primer
123 <400> SEQUENCE: 8
124 gaacatcccc aagatagacc cactattaga gaaaaag 37
127 <210> SEQ ID NO: 9
128 <211> LENGTH: 37
129 <212> TYPE: DNA
130 <213> ORGANISM: Artificial sequence
132 <220> FEATURE:
133 <223> OTHER INFORMATION: primer
135 <400> SEQUENCE: 9
136 ctttttctct aatagtgggt ctatcttggg gatgttc 37
139 <210> SEQ ID NO: 10
140 <211> LENGTH: 37
141 <212> TYPE: DNA

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Input Set : **A:\sequence listing.txt**
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142 <213> ORGANISM: Artificial sequence
144 <220> FEATURE:
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152 <211> LENGTH: 37
153 <212> TYPE: DNA
154 <213> ORGANISM: Artificial sequence
156 <220> FEATURE:
157 <223> OTHER INFORMATION: primer
159 <400> SEQUENCE: 11
160 ctttttctct aatagtgggg ttatcttggg gatgttc 37
163 <210> SEQ ID NO: 12
164 <211> LENGTH: 37
165 <212> TYPE: DNA
166 <213> ORGANISM: Artificial sequence
168 <220> FEATURE:
169 <223> OTHER INFORMATION: primer
171 <400> SEQUENCE: 12
172 gaacatcccc aagatcaccc cactattaga gaaaaag 37
175 <210> SEQ ID NO: 13
176 <211> LENGTH: 37
177 <212> TYPE: DNA
178 <213> ORGANISM: Artificial sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: primer
183 <400> SEQUENCE: 13
184 ctttttctct aatagtgggg tgatcttggg gatgttc 37
187 <210> SEQ ID NO: 14
188 <211> LENGTH: 37
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: primer
196 <220> FEATURE:
197 <221> NAME/KEY: misc_feature
198 <222> LOCATION: (1)..(1)
199 <223> OTHER INFORMATION: 5' phosphate
201 <220> FEATURE:
202 <221> NAME/KEY: misc_feature
203 <222> LOCATION: (16)..(17)
204 <223> OTHER INFORMATION: n= A, T, G or C
206 <400> SEQUENCE: 14
W--> 207 gaacatcccc aagatnnkcc cactattaga gaaaaag 37
210 <210> SEQ ID NO: 15
211 <211> LENGTH: 18
212 <212> TYPE: DNA
213 <213> ORGANISM: Artificial sequence

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Input Set : **A:\sequence listing.txt**
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215 <220> FEATURE:
216 <223> OTHER INFORMATION: primer
218 <400> SEQUENCE: 15
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222 <210> SEQ ID NO: 16
223 <211> LENGTH: 18
224 <212> TYPE: DNA
225 <213> ORGANISM: Artificial sequence
227 <220> FEATURE:
228 <223> OTHER INFORMATION: primer
230 <400> SEQUENCE: 16
231 cgacgactcg tggagccc 18
234 <210> SEQ ID NO: 17
235 <211> LENGTH: 2328
236 <212> TYPE: DNA
237 <213> ORGANISM: Pyrococcus furiosus
239 <400> SEQUENCE: 17
240 atgattttag atgtggatta cataactgaa gaaggaaaac ctgttattag gctattcaaa 60
242 aaagagaacg gaaaatttaa gatagagcat gatagaactt ttagaccata catttacgct 120
244 cttctcaggg atgattcaaa gattgaagaa gttaagaaaa taacggggga aaggcatgga 180
246 aagattgtga gaattgttga tgtagagaag gttgagaaaa agtttctcgg caagcctatt 240
248 accgtgtgga aactttattt ggaacatccc caagatgttc ccactattag agaaaaagtt 300
250 agagaacatc cagcagttgt ggacatcttc gaatacgata ttccatttgc aaagagatac 360
252 ctcatcgaca aaggcctaat accaatggag ggggaagaag agctaaagat tcttgccttc 420
254 gatatagaaa ccctctatca cgaaggagaa gagtttggaa aaggcccaat tataatgatt 480
256 agttatgcag atgaaaatga agcaaaggtg attacttgga aaaacataga tcttccatac 540
258 gttgaggttg tatcaagcga gagagagatg ataaagagat ttctcaggat tatcagggag 600
260 aaggatcctg acattatagt tacttataat ggagactcat tcgcattccc atatttagcg 660
262 aaaagggcag aaaaacttgg gattaaatta accattggaa gagatggaag cgagcccaag 720
264 atgcagagaa taggcgatat gacggctgta gaagtcaagg gaagaataca tttcgacttg 780
266 tatcatgtaa taacaaggac aataaatctc ccaacataca cactagaggc tgtatatgaa 840
268 gcaatttttg gaaagccaaa ggagaaggta tacgccgacg agatagcaaa agcctgggaa 900
270 agtggagaga accttgagag agttgccaaa tactcgatgg aagatgcaaa ggcaacttat 960
272 gaactcggga aagaattcct tccaatggaa attcagcttt caagattagt tggacaacct 1020
274 ttatgggatg tttcaaggtc aagcacaggg aaccttgtag agtggttctt acttaggaaa 1080
276 gcctacgaaa gaaacgaagt agctccaaac aagccaagtg aagaggagta tcaaagaagg 1140
278 ctcagggaga gctacacagg tggattcgtt aaagagccag aaaaggggtt gtgggaaaac 1200
280 atagtatacc tagattttag agccctatat ccctcgatta taattaccca caatgtttct 1260
282 cccgatactc taaatcttga gggatgcaag aactatgata tcgctcctca agtaggccac 1320
284 aagttctgca aggacatccc tggttttata ccaagtctct tgggacattt gttagaggaa 1380
286 agacaaaaga ttaagacaaa aatgaaggaa actcaagatc ctatagaaaa aatactcctt 1440
288 gactatagac aaaaagcgat aaaactctta gcaaattctt tctacggata ttatggctat 1500
290 gcaaaagcaa gatggtactg taaggagtgt gctgagagcg ttactgcctg gggaagaaag 1560
292 tacatcgagt tagtatggaa ggagctcgaa gaaaagtttg gatttaaagt cctctacatt 1620
294 gacactgatg gtctctatgc aactatccca ggaggagaaa gtgaggaaat aaagaaaaag 1680
296 gctctagaat ttgtaaaata cataaattca aagctccctg gactgctaga gcttgaatat 1740
298 gaagggtttt ataagagggg attcttcgtt acgaagaaga ggtatgcagt aatagatgaa 1800
300 gaaggaaaag tcattactcg tggtttagag atagttagga gagattggag tgaaattgca 1860
302 aaagaaactc aagctagagt tttggagaca atactaaaac acggagatgt tgaagaagct 1920

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304 gtgagaatag taaaagaagt aatacaaaag cttgccaatt atgaaattcc accagagaag 1980
306 ctcgcaatat atgagcagat aacaagacca ttacatgagt ataaggcgat aggtcctcac 2040
308 gtagctgttg caaagaaact agctgctaaa ggagttaaaa taaagccagg aatggtaatt 2100
310 ggatacatag tacttagagg cgatggtcca attagcaata gggcaattct agctgaggaa 2160
312 tacgatccca aaaagcacaa gtatgacgca gaatattaca tggagaacca ggttcttcca 2220
314 gcggtactta ggatattgga gggatttgga tacagaaagg aagacctcag ataccaaaag 2280
316 acaagacaag tcggcctaac ttcctggctt aacattaaaa aatcctag 2328
319 <210> SEQ ID NO: 18
320 <211> LENGTH: 2325
321 <212> TYPE: DNA
322 <213> ORGANISM: Pyrococcus sp.
324 <400> SEQUENCE: 18
325 atgatcctcg acactgacta cataaccgag gatggaaagc ctgtcataag aattttcaag 60
327 aaggaaaacg gcgagtttaa gattgagtac gaccggactt ttgaacccta cttctacgcc 120
329 ctcctgaagg acgattctgc cattgaggaa gtcaagaaga taaccgccga gaggcacggg 180
331 acggttgtaa cggttaagcg ggttgaaaag gttcagaaga agttcctcgg gagaccagtt 240
333 gaggtctgga aactctactt tactcatccg caggacgtcc cagcgataag ggacaagata 300
335 cgagagcatc cagcagttat tgacatctac gagtacgaca tacccttcgc caagcgctac 360
337 ctcatagaca agggattagt gccaatggaa ggcgacgagg agctgaaaat gctcgccttc 420
339 gacattgaaa ctctctacca tgagggcgag gagttcgccg aggggccaat ccttatgata 480
341 agctacgccg acgaggaagg ggccagggtg ataacttgga agaacgtgga tctcccctac 540
343 gttgacgtcg tctcgacgga gagggagatg ataaagcgct tcctccgtgt tgtgaaggag 600
345 aaagacccgg acgttctcat aacctacaac ggcgacaact tcgacttcgc ctatctgaaa 660
347 aagcgctgtg aaaagctcgg aataaacttc gccctcggaa gggatggaag cgagccgaag 720
349 attcagagga tgggcgacag gtttgccgtc gaagtgaagg gacggataca cttcgatctc 780
351 tatcctgtga taagacggac gataaacctg cccacataca cgcttgaggc cgtttatgaa 840
353 gccgtcttcg gtcagccgaa ggagaaggtt tacgctgagg aaataaccac agcctgggaa 900
355 accggcgaga accttgagag agtcgcccgc tactcgatgg aagatgcgaa ggtcacatac 960
357 gagcttggga aggagttcct tccgatggag gcccagcttt ctcgcttaat cggccagtcc 1020
359 ctctgggacg tctcccgctc cagcactggc aacctcgttg agtggttcct cctcaggaag 1080
361 gcctatgaga ggaatgagct ggccccgaac aagcccgatg aaaaggagct ggccagaaga 1140
363 cggcagagct atgaaggagg ctatgtaaaa gagcccgaga gagggttgtg ggagaacata 1200
365 gtgtacctag attttagatc cctgtacccc tcaatcatca tcacccacaa cgtctcgccg 1260
367 gatacgctca acagagaagg atgcaaggaa tatgacgttg ccccacaggt cggccaccgc 1320
369 ttctgcaagg acttcccagg atttatcccg agcctgcttg gagacctcct agaggagagg 1380
371 cagaagataa agaagaagat gaaggccacg attgacccga tcgagaggaa gctcctcgat 1440
373 tacaggcaga gggccatcaa gatcctggca aacagctact acggttacta cggctatgca 1500
375 agggcgcgct ggtactgcaa ggagtgtgca gagagcgtaa cggcctgggg aagggagtac 1560
377 ataacgatga ccatcaagga gatagaggaa aagtacggct ttaaggtaat ctacagcgac 1620
379 accgacggat tttttgccac aatacctgga gccgatgctg aaaccgtcaa aaagaaggct 1680
381 atggagttcc tcaagtatat caacgccaaa cttccgggcg cgcttgagct cgagtacgag 1740
383 ggcttctaca aacgcggctt cttcgtcacg aagaagaagt atgcggtgat agacgaggaa 1800
385 ggcaagataa caacgcgcgg acttgagatt gtgaggcgtg actggagcga gatagcgaaa 1860
387 gagacgcagg cgagggttct tgaagctttg ctaaaggacg gtgacgtcga gaaggccgtg 1920
389 aggatagtca aagaagttac cgaaaagctg agcaagtacg aggttccgcc ggagaagctg 1980
391 gtgatccacg agcagataac gagggattta aaggactaca aggcaaccgg tccccacgtt 2040
393 gccgttgcca agaggttggc cgcgagagga gtcaaaatac gccctggaac ggtgataagc 2100
395 tacatcgtgc tcaagggctc tgggaggata ggcgacaggg cgataccgtt cgacgagttc 2160
397 gacccgacga agcacaagta cgacgccgag tactacattg agaaccaggt tctcccagcc 2220

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 12/06/2004
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ease Note:
e of n and/or Xaa have been detected in the Sequence Listing. Please review the quence Listing to ensure that a corresponding explanation is presented in the <220> <223> fields of each sequence which presents at least one n or Xaa.

q#:3; N Pos. 23
q#:14; N Pos. 16,17
q#:23; N Pos. 1161
q#:24; N Pos. 423,429
q#:37; N Pos. 277,278,279
q#:37; Xaa Pos. 93
q#:38; Xaa Pos. 93
q#:40; N Pos. 2788,2789,3287,3288,3289,3290,3291,3292,3473,3478
q#:75; N Pos. 5,10,11,13,20,21
q#:76; N Pos. 6,8,15
q#:84; Xaa Pos. 1118,1123

valid <213> Response:
e of "Artificial" only as "<213> Organism" response is incomplete, er 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

eq#:109,110

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L:64 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:1140
L:866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:420
L:3170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:240
L:3171 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:288
L:3381 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:80
L:3884 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:2760
L:3900 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:3240
L:3906 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:3420
L:4420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:0
L:4448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:0
L:5024 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84 after pos.:1113